

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. **(currently amended)** A composition comprising a purified peptide of a SARS coronavirus S protein, wherein said peptide is capable of modification of SARS coronavirus infectivity and wherein said peptide is from about 14 to about 35 amino acids in length.
2. **(original)** The composition of claim 1 wherein said modification is an inhibition of infectivity.
3. **(original)** The composition of claim 1 wherein said peptide has a conformational constraint, wherein said constraint enhances an ability to maintain an alpha-helical conformation.
4. **(original)** The composition of claim 1 wherein said peptide comprises a lactam bridge.
5. **(original)** The composition of claim 1 wherein said peptide is selected from the group consisting of: SEQ ID NOS: 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 47, 48, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102; and a peptide fragment comprising any continuous 14 amino acids thereof of the foregoing peptides.
6. **(currently amended)** A composition comprising a purified peptide of a SARS coronavirus S protein, wherein said peptide is capable of modifying an ability of said S protein to form or maintain a conformation relating to fusion or entry in a target cell and wherein said peptide is from about 14 to about 35 amino acids in length.

7. **(withdrawn)** A composition comprising a purified peptide HR-N10 (SEQ ID NO:24) or HR-N10a (SEQ ID NO:47).
8. **(currently amended)** A composition comprising a purified peptide HR-C4 (SEQ ID NO:46), or HR-C4a (SEQ ID NO:48), or HR-C4a (SEQ ID NO:67) and wherein said peptide is from about 14 to about 35 amino acids in length.
9. **(currently amended)** A composition comprising an alpha-helical trimeric conformation of an HR peptide of a coronavirus spike or fusion protein, wherein said peptide is from about 14 to about 35 amino acids in length.
10. **(currently amended)** A composition comprising an alpha-helical trimeric conformation of a purified HR peptide of a SARS coronavirus S protein, wherein said peptide is from about 14 to about 35 amino acids in length .
11. **(previously presented)** The composition of claim 10 wherein said HR peptide is selected from the group consisting of HR-N10 (SEQ ID NO:24), HR-N10a (SEQ ID NO:47), HR-C4 (SEQ ID NO:46), HR-C4a (SEQ ID NO:48), and HR-C4a (SEQ ID NO:67).
12. **(withdrawn)** The composition of claim 10 wherein said HR peptide is HR-N10 (SEQ ID NO:24) or HR-N10a (SEQ ID NO:47).
13. **(currently amended)** The composition of claim 10 wherein said HR peptide ~~is~~ comprises HR-C4a (SEQ ID NO:67).
14. **(withdrawn)** A composition comprising an alpha-helical hetero-trimeric (6-helix) conformation of a purified HR peptide of a coronavirus spike or fusion protein.
15. **(withdrawn)** A composition comprising an alpha-helical hetero-trimeric (6-helix) conformation of a complex comprising a purified HR-N peptide and a purified HR-C peptide of a SARS coronavirus S protein.
16. **(withdrawn)** The composition of claim 15 wherein said HR-N peptide is selected from the group consisting of HR-N1 (SEQ ID NO:6), HR-N2 (SEQ ID NO:8), HR-N10 (SEQ ID NO:24), and HR-N10a (SEQ ID NO:47); and said HR-C peptide is

- selected from the group consisting of HR-C1 (SEQ ID NO:40), HR-C4 (SEQ ID NO:46), HR-C4a (SEQ ID NO:67) and HR-C4a (SEQ ID NO:48).
17. **(withdrawn)** The composition of claim 15 wherein said HR-N peptide is HR-N10 (SEQ ID NO:24) or HR-N10a (SEQ ID NO:47) and said HR-C peptide is HR-C4 (SEQ ID NO:46), HR-C4a (SEQ ID NO:67) or HR-C4a (SEQ ID NO:48).
 18. **(withdrawn)** The composition of claim 16 wherein said HR-N peptide is HR-N10 (SEQ ID NO:24) or HR-N10a (SEQ ID NO:47) and said HR-C peptide is HR-C4a (SEQ ID NO:67) or HR-C1 (SEQ ID NO:40).
 19. **(currently amended)** A composition comprising a purified HR-N or HR-C peptide of SARS coronavirus S protein, wherein said peptide is capable of modification of SARS coronavirus infectivity, wherein said peptide is from about 14 to about 35 amino acids in length and wherein said peptide has a transition midpoint temperature of from about 35 to about 90 degrees Celsius.
 20. **(original)** The composition of claim 19 wherein said temperature is from about 36 to about 74 degrees Celsius.
 21. **(original)** The composition of claim 19 wherein said temperature is from about 37 to about 60 degrees Celsius.
 22. **(original)** The composition of claim 19 wherein said temperature is from about 56 to about 57 degrees Celsius.
 23. **(currently amended)** A purified peptide comprising from at least about 14 to about 35 contiguous amino acids derived from a peptide selected from the group consisting of: HR-N10 (SEQ ID NO:24), HR-N10a (SEQ ID NO:47), HR-C4 (SEQ ID NO:46), HR-C4a (SEQ ID NO:67) and HR-C4a (SEQ ID NO:48), wherein said peptide exhibits a stable helix conformation at a physiological temperature of a human or other mammal.
 24. **(withdrawn)** A composition comprising a purified nucleic acid molecule encoding a peptide of SARS coronavirus S protein, wherein said peptide is capable of modification of SARS coronavirus infectivity.

25. **(withdrawn)** A composition comprising a purified nucleic acid molecule encoding an HR peptide of a SARS coronavirus S protein.
26. **(withdrawn)** A composition comprising a purified nucleic acid molecule capable of encoding a peptide selected from the group consisting of: HR-N10 (SEQ ID NO:24), HR-N10a (SEQ ID NO:47), HR-C4 (SEQ ID NO:46), HR-C4a (SEQ ID NO:67) and HR-C4a (SEQ ID NO:48).
27. **(withdrawn)** A composition comprising a purified nucleic acid molecule capable of encoding peptide HR-N10 (SEQ ID NO:24) or HR-N10a (SEQ ID NO:47).
28. **(withdrawn)** A composition comprising a purified nucleic acid molecule capable of encoding peptide HR-C4 (SEQ ID NO:46), HR-C4a (SEQ ID NO:67) or HR-C4a (SEQ ID NO:48).
- 29-36. Canceled
37. **(currently amended)** A SARS coronavirus purified peptide composition capable of stimulating an immune response, wherein said composition is selected from the group consisting of: a SARS coronavirus S protein; a peptide of a SARS coronavirus S protein; an HR-N peptide of a SARS coronavirus S protein; an HR-C peptide of a SARS coronavirus S protein; HR-N10; HR-N10a; HR-C4; HR-C4a; HR-C1; a trimeric conformation of a SARS coronavirus peptide; a six helix bundle conformation of a complex of a SARS coronavirus HR-N peptide and an HR-C peptide; and a peptide fragment comprising ~~any continuous~~ from about 14 to about 35 amino acids thereof of the foregoing peptides.
38. Canceled
39. **(withdrawn)** The composition of claim 1 wherein said peptide is an HR-N peptide selected from the group consisting of HR-N10 (SEQ ID NO:24) and HR-N10a (SEQ ID NO:47).
40. **(previously presented)** The composition of claim 1 wherein said peptide is an HR-C peptide selected from the group consisting of HR-C4 (SEQ ID NO:46), HR-C4a (SEQ ID NO:67) and HR-C4a (SEQ ID NO:48).

41. **(previously presented)** The composition of claim 6 wherein said peptide comprises SEQ ID NO:67.
42. **(previously presented)** A composition comprising a purified peptide HR-C4a (SEQ ID NO:67).
43. **(previously presented)** The composition of claim 9 wherein said peptide comprises SEQ ID NO:67.
44. **(previously presented)** The composition of claim 10 wherein said peptide comprises SEQ ID NO:67.